

# EUROPEAN PATENT OFFICE

## Patent Abstracts of Japan

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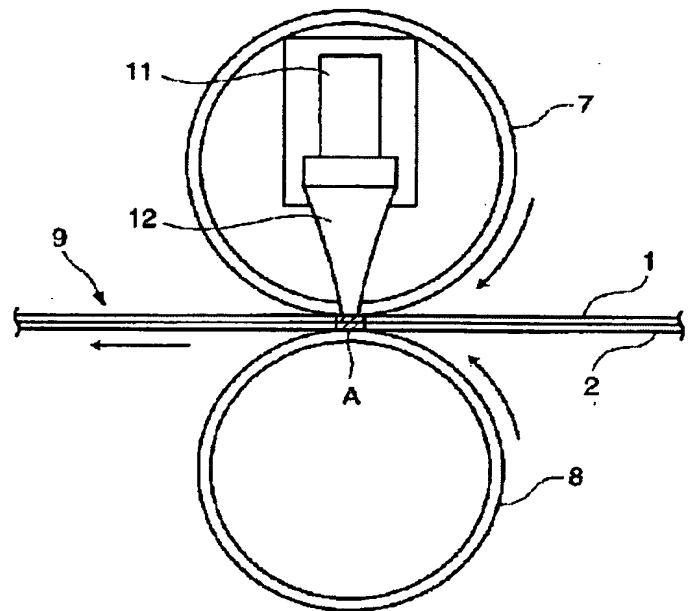
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APPLICANT : ZUIKO CORP;

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TITLE : METHOD AND APPARATUS FOR  
WELDING THERMOPLASTIC STOCK



**ABSTRACT :** PROBLEM TO BE SOLVED: To suitably weld necessary positions of thermoplastic stocks without problem of damaging surfaces of the thermoplastic stocks.

**SOLUTION:** A method for welding the thermoplastic stocks comprises the steps of arranging a vibration transmitting member 12 for transmitting an ultrasonic vibration input from a vibration generator 11 to the thermoplastic stocks 1 and 2 therein; conveying the stocks 1 and 2 between a welding roller 7 installed so that its distal end is exposed with its peripheral surface and a pressure contact roller 8 opposed to the roller 7; transmitting the vibration input from the generator 11 to the member 12 to the stocks 1 and 1, at a time point when the distal end of the member 12 is arrived at a position opposed to parts A to be welded of the stocks 1 and 2, while conveying the stocks 1 and 2 in response to rotations of the roller 7 and the roller 8; and frictionally heating the parts A of the stocks 1 and 2 by its vibration energy to weld the parts A of the stocks 1 and 2. An apparatus for welding the thermoplastic stocks is provided.

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